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B. AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph immediately following the heading, BACKGROUND OF THE INVENTION, and beginning on page 1, line 16 of the specification with the following paragraph:

Caller Identification (Caller ID) enables telephone conference caller ~~participants~~ participants to identify a caller before picking up the telephone. Caller ID is useful when the caller does not identify himself and immediately begins a conversation. Caller ID has solved the problem of awkwardly interrupting a telephone conversation in order to identify the other party involved. However, Caller ID cannot identify the speaking party where there are multiple party telephone conversations, such as during a conference call.

Due to increased travel costs and the cost of office space, conference call meetings have increased in popularity. Frequently, the participants call into a conference calling service which links the appropriate callers together. To attend a conference call, the parties call a specific telephone number and identify themselves with a conference call number specific to each party. All of the parties are then linked together on a common line and the conference call proceeds. During the conference call, it is often difficult to identify the speaker at any given time. Interrupting the conference call to identify the speaker is not preferable as it disrupts the flow of the conference call. Therefore, a need exists for an apparatus and a method for identifying and indicating the speaker during a conference call.

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Please replace the paragraph immediately following the heading, SUMMARY OF THE INVENTION, and starting at line 9 of page 2 of the specification with the following paragraph:

The present invention allows a participant in a conference call to receive conference call information at a telephone display unit, at a computer display or at both types of display. The conference call information is updated during the call and includes identification of the speaker during a conference call. The conference callers are connected together and identified either by standard caller identification or by other identification provided by the operator. The conference callers' identifications are then transmitted in two ways. First, a coded signal is sent over the telephone connection to a telephone display unit. Second, an information packet is transmitted over the Internet to a conference call participant's computer. A server computer monitors the conference call and the identification of parties involved is updated ~~as~~ and parties are added or disconnected. The speaking party is identified in one of two ways. First, during the call, the speaker's telephone line will have a higher transmission amplitude than the other telephone lines and the line with the highest transmission amplitude will be identified by the server computer. Second, voice identification data is gathered before the conference call and stored in the server computer for use in identifying the speaker.

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Please replace the BRIEF DESCRIPTION OF DRAWINGS section begins on page 3, line 1 of the specification with the following section:

BRIEF DESCRIPTION OF DRAWINGS

Figure 1 is depiction of a distributed data processing system;

Figure 2 is a depiction of a server computer;

Figure 3 is a depiction of a client computer;

Figure 4 is a depiction of the server computer connected to the telephone switchboard and to the Internet;

Figure 5 is depiction of the server computer attached to a modulator for sending a coded signal through the telephone connection;

Figure 6A is a depiction of the sever server computer memory;

Figure 6B is a depiction of the organization of the data files in the computer memory;

Figure 6C is a depiction of the organization of the programs in the computer memory;

Figure 6D is a depiction of the conference call list file;

Figure 6E is a depiction of a plurality of conference call information files;

Figure 6F is a depiction of a an incoming line list file;

Figure 6G is a depiction of a plurality of line information files;

Figure 6H is a depiction of a participant list file;

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Figure 6I is a depiction of a plurality of participant information files;

Figure 6J is a depiction of a plurality of conference call line list files;

Figure 6K is a depiction of a plurality of conference call links files;

Figure 7 is a depiction of the telephone display unit;

Figure 8 is a depiction of the computer display;

Figure 9A is a depiction of the information shown at the telephone display unit;

Figure 9B is a depiction of alternate information shown at the telephone display unit;

Figure 10 is a flow chart of the information packet program;

Figure 11 is a flow chart of the telephone display unit program;

Figure 12 is a flow chart of the voice amplitude acquisition program;

Figure 13 is a flow chart of the voice amplitude display program;

Figure 14 is a flow chart of the voice print acquisition program; and

Figure 15 is a flow chart of the voice print identification program.

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Please replace the paragraph beginning on page 7, line 19 of the specification with the following paragraph:

Those of ordinary skill in the art will appreciate that the hardware in Figure 3 may vary depending on the implementation. Other internal hardware or peripheral devices, such as flash ROM (or equivalent nonvolatile memory) or optical disk drives and the like, may be used in addition to or in place of the hardware depicted in Figure 3. Also, the processes of the present invention may be applied to a multiprocessor data processing system. For example, data processing system 300, if configured as a network computer, may not include SCSI host bus adapter 312, hard disk drive 326, tape drive 328, and CD-ROM 330, as noted by dotted line 332 in Figure 3 denoting optional inclusion. In that case, the computer, to be properly called a client computer, must include some type of network communication interface, such as LAN adapter 310, modem 322, or the like. As another example, data processing system 300 may be configured to be bootable without relying on some type of network communication interface. As a further example, data processing system 300 may be a Personal Digital Assistant (PDA) device which is configured with ROM and/or flash ROM in order to provide non-volatile memory for storing operating system files and/or user-generated data. The depicted example in Figure 3 and above-described examples are not meant to imply architectural limitations with respect to the present invention. It is important to note that while the present invention has been described in the context of a fully functioning data processing system, those of ordinary skill in the art will appreciate that

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the processes of the present invention are capable of being distributed in a form of a computer readable medium of instructions and a variety of forms and that the present invention applies equally regardless of the particular type of signal bearing media actually used to carry out the distribution. Examples of computer readable media include recordable-type media, such as a floppy disc, a hard disk drive, a RAM, and CD-ROMs, and transmission-type media, such as digital and analog communications links.

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Please replace the paragraph beginning on page 8, line 20 of the specification with the following paragraph:

Figure 4 is a depiction of Caller ID System 1 (CIDS1) 400. CIDS1 has computer 410 connected to amplitude discriminator 420 by line 414 and ~~to network 102~~ to network 102 by line 404. Computer 410 may be a server computer such as data processing system 200 in Fig. 2. In the preferred embodiment network 102 is the Internet. Amplitude discriminator 420 is connected to switch 430 by line 424. Switch 430 connects incoming telephone lines (TL) TL1 432, TL2 436, TL3 440, TL4 444, TL5 448 and TL6 452. The incoming telephone lines may be wire or wireless and extend from public switch telephone network (PSTN) 480. Switch 430 can configure the incoming lines to form any combination of conference calls. For purposes of illustration only, and not by way of limitation, conference call A (CCA) 460 and conference call B (CCB) 470 are shown. CCA 460 has TL1 432, TL3 440 and TL4 444 connected. CCB has TL2 436, TL5 448 and TL6 452 connected. Amplitude discriminator 420 determines the amplitude of the signal on TL1 432, TL2 436, TL3 440, TL4 444, TL5 448 and TL6 452. Amplitude discriminator transmits the amplitude of each line connected by switch 430 to computer 410. Computer 410 then determines which line in CCA has the greatest amplitude and transmits that information over network 102 to all participants in CCA. Computer 410 also determines which line in CCB 470 has the greatest amplitude and transmits that information over network 102 to all participants in CCB 470. In addition, Roster Information (RI) can be transmitted over the Network. As used herein the term Roster

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Information (RI) means a list of speaker identifications and any other information that may be desirable to furnish to a conference call participant and that can be accessed during the conference call by either a computer or a telephone display unit.

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Please replace the paragraph beginning on page 14, line 13 of the specification with the following paragraph:

Figure 10 depicts roster information program (RIP) 1000. RIP 1000 begins (1002) and queries the conference caller participant for input (1004). A determination made as to whether data will be input by the operator (1006). If a determination is made that data will be input by the operator, RIP 1000 enters the data obtained by the operator (1008) and RIP 1000 goes to step 1022. If a determination is made that data will not be input by the operator, then RIP 1000 determines whether conference call numbers (CCN) have been assigned (1010). If CCNs have been assigned, the CCNs are entered (1012). If CCNs have not been assigned, then CCNs are assigned (1014). RIP 1000 displays the information (1022). A determination is made as to whether the information is complete (~~1022~~1024). If the information is not complete, an error message is displayed (1020) and a determination is made whether to override (1018). If a determination is made not to override, then additional information is entered (1016) and RIP 1000 goes to step 1022. If a determination is made to override, then RIP 1000 goes to step 1026 and the information is saved (1026). If at step 1024 a determination is made that the information is complete, then the information is saved as roster information (RI) (1026). A determination is made as to whether another entry is to be made (1028). If another entry is to be made, then RIP 1000 goes to step 1004. If another entry is not to be made, then RIP 1000 stops (1030).

Please replace the paragraph beginning on page 18, line 10 of the specification with the following paragraph:

Figure 14 is a flow chart of voice identification acquisition program (VIA) 1400. VIA 1400 begins (1402) and a determination is made as to whether there is a new caller (1404). If not, VIA 1400 ends (1418). If there is a new caller, a voice sample is obtained (1406). A determination is made as to whether the voice sample is sufficient (1408). If not, an additional voice sample is obtained (1410) and VIA 1400 goes to step 1408. If the voice sample is sufficient, then the voice sample is analyzed (1412). Persons skilled in the art are aware of multiple way to analyze a voice sample for use in voice identification. For example, VIA 1400 may use a real-time Fourier transform on the voice sample to discern the unique overtone ~~patterns~~ patterns of the speaker's vocal cavities. Alternatively, VIA 1400 may identify phonemes in the voice sample so that unique differences can be determined by observing the curvature of spectral response maxima over time. Different speakers have different curvatures (rates, inflections) in their speech which can be utilized to identify the speech. After analyzing the voice sample, a voice print is prepared and stored (1414). A determination is made as to whether there is another speaker (1416). If so, VIA 1400 goes to step 1406. If not, VIA 1400 ends (1418).

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Please replace the paragraph beginning on page 19, line 3 of the specification with the following paragraph:

Figure 15 is a flow chart of the voice print identification program (VPI) 1500. VPI 1500 begins (1502). VPI determines a current voice print for each speaker (1504). A determination is made as to whether the current voice print matches a voice print in memory (1506). If there is not a match, then the current voice print is stored in memory (1508) and VPI 1500 returns to step ~~1506~~ 1504. If a match is made at step 1506, the speaker whose voice print was matched is highlighted, or otherwise designated as discussed above in Fig. 8, 9A and 9B, in the Roster Information (RI) (1510). A new RI is sent (1512). A determination is made as to whether there is new speaker (1514). If there is a new speaker, then VPRI 1500 goes to step 1504. If not, a determination is made as to whether the conference call is over (1516). If the conference call is not over, VPI 1500 goes to step ~~1504~~ 1514. If the conference call is over, then VPI 1500 ends (1518).

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Please replace the abstract paragraph on page 25 of the specification with the following paragraph:

An apparatus and method is disclosed that allows a participant in a conference call to receive conference call roster information at a telephone display unit, at a computer display or at both types of display. The conference call information is updated during the call and includes identification of the speaker during a conference call. The conference callers are connected together and identified either by standard caller identification or by other identification provided by the operator. The conference callers' identifications are then transmitted in two ways. First, a coded signal is sent over the telephone connection to a telephone display unit. Second, an information packet is transmitted over the Internet to a conference call participant's computer. A server computer monitors the conference call and the identification of parties involved is updated a and parties are added or disconnected. The speaking party is identified in one of two ways. First, during the call, the speaker's telephone line will have a higher transmission amplitude than the other telephone lines and the line with the highest transmission amplitude will be identified by the server computer. Second, voice identification data is gathered before the conference call and stored in the server computer for use in identifying the speaker.